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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION I

IN THE MATTER OF:

Wells G & H Superfund Site Woburn, Massachusetts U.S. EPA DOCKET NO.

CERCLA

I-90-1035

PROCEEDINGS UNDER SECTION 122(d)(3)

RELATING TO A SETTLEMENT AGREEMENT FOR ACTION)

UNDER SECTION 104(b) OF THE COMPREHENSIVE

ENVIRONMENTAL RESPONSE, COMPENSATION, AND

LIABILITY ACT OF 1980, AS AMENDED, 42 U.S.C.)

SECTION 9601

ADMINISTRATIVE ORDER

BY CONSENT

1. This Administrative Order by Consent (Order) is entered into voluntarily by and between the United States Environmental Protection Agency (EPA), and W.R. Grace & Co.-Conn. and Unifirst Corporation (the Respondents). The Order concerns the preparation of, performance of, and reimbursement of oversight costs for the testing and monitoring activities described in the Scope of Work (Appendix A) to this Order relating to the Superfund Site known as the Wells G & H Superfund Site (the Site) in Woburn, Massachusetts. This Order is issued pursuant to the authority vested in the President of the United States by Section 104 and 122(d)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. Section 9601 et. seq. which authorize the President to issue an order setting forth the

obligations of the Respondent(s) with respect to a settlement agreement for action under Section 104(b) of CERCLA. This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (January 29, 1987), and further delegated to the Regional Administrator, September 13, 1987, by EPA delegation No. 14-14-C. The Respondents agree not to contest the authority or jurisdiction of the Regional Administrator to issue this Order in any subsequent proceeding to enforce the terms of this Order.

DENIAL OF LIABILITY

The government and the Respondents agree that neither this 2. Order, nor any part hereof, nor the entry into, nor any performance under this Order by any of the Respondents, shall constitute or be construed to be an admission or acknowledgement by the Respondents of the factual or legal allegations contained in this Order, or of any liability, fault or wrongdoing, or evidence of such, or an admission of violation of any law, rule, regulation, or policy, by any Respondent or by any of its officers, directors, employees, agents, successors, or assigns, nor shall this Order nor any performance hereunder by any of the Respondents create any right on behalf of any other person not a party hereto. Except as provided in Paragraph 47 and except in any proceeding to enforce the terms of this Order, each of the Respondents expressly reserves any and all rights (including any rights to contribution), defenses, claims, demands and causes of action which each of them may have with respect to any matter, action, event, claim or proceeding relating in any way to the Site against any person. The Respondents do not admit to, and retain the right to controvert in any subsequent proceeding, other than proceedings for the purpose of implementing or enforcing this Order, the validity of the facts or determinations contained in this Order. Nothing in this Order shall be construed to require or otherwise obligate the Respondents to conduct or reimburse EPA for Remedial Design or Remedial Action at the Site.

PARTIES BOUND

3. This Order shall apply to and be binding upon EPA and Respondents, successors, and assigns, and upon all persons, acting under or for the Respondents. No change or changes in the ownership or corporate status of any of the Respondents shall in any way alter the Respondents' responsibilities under this Order. Each Respondent shall provide a copy of this Order to any subsequent owners or successors before ownership rights are transferred. The Respondents shall be jointly and severally liable for the performance of the activities specified in the Order and for penalties arising from this Order. The signatories to this Order certify that they are authorized to execute and legally bind the parties they represent.

4. The Respondents shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct any portion of the work performed pursuant to this Order, within five (5) calendar days after the effective date of this Order or after the date of such retention.

Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that their contractors and agents comply with this Order. Any reference herein to the Order shall mean the Order, any Appendix hereto including any future modifications as provided by the terms of the Order as may be added hereafter, and any reports, plans, specifications, schedules, and appendices required by this Order which, upon approval of EPA, shall be incorporated into and enforceable under the Order.

STATEMENT OF PURPOSE

5. In entering into the Order, the mutual objective of EPA and the Respondents is to conduct treatability studies and pump tests, the results of which will provide EPA with information for its use in planning and directing the remedial design and action to be undertaken at the Site by conducting the testing and monitoring activities described in Appendix A (the Activities).

6. The work performed under this Order is subject to approval by EPA and shall provide information to support the remedial design for the Record of Decision for the Site that is consistent with CERCLA Sections 104, 121, and 122, and the National Contingency Plan (NCP), 40 CFR Part 300.

FINDINGS OF FACT

- 7. The Wells G & H Site is located in east Woburn,
 Massachusetts, and includes the aquifer and land mass area
 located within the zone of contribution of two municipal drinking
 water wells known as Wells G & H. The Site is bounded by Route
 128 to the north, Route 93 to the east, the Boston and Maine
 Railroad to the west, and Salem Street to the south.
- 8. In May 1979, the Massachusetts Department of Environmental Quality Engineering (DEQE) found several volatile organic compounds, including 1,1,1-trichlorethane, tetrachloroethene, trans 1,2- dichloroethene, and trichoroethene at concentrations ranging from 1 to 400 parts per billion (ppb) in water sampled from the wells. The wells were subsequently shutdown by DEQE.
- 9. On December 21, 1982, Wells G & H were listed on the National Priorities List pursuant to Section 105(8)(B) of CERCLA, 42 U.S.C. § 9605 (8)(B).

- 10. In December 1988, EPA completed an investigation of the nature and extent of contamination at the Site. The results of this investigation are contained in three reports: Wells G & H Site, Remedial Investigation Report, Part I, Woburn, Massachusetts, October 17, 1986; Wells G & H Remedial Investigation, Part II, November 1986; and Final Supplemental Remedial Investigation, Wells G & H, December 1988. These reports conclude that the groundwater beneath the Site is contaminated principally with volatile organic compounds. In addition, soils within the Site area are contaminated with volatile organic compounds, metals, pesticides and polychlorinated biphenyls (PCBs).
- 11. The Unifirst Corporation and W.R. Grace & Co.-Conn. each own property within the Site area. Groundwater contamination has been detected beneath both properties. On September 14, 1989, EPA issued a Record of Decision (ROD) for the Wells G & H Site. This ROD required, among other things, that groundwater contamination beneath the Unifirst and W.R. Grace properties be remediated by extracting the contaminated groundwater and subsequently treating the groundwater to remove the contamination.
- 12. EPA has arranged for oversight and review of the Activities by both qualified EPA personnel and qualified contractors in accordance with Section 104(a)(1) of CERCLA.

DETERMINATIONS

- 13. On the basis of the Findings of Fact, EPA has determined that:
 - a. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
 - b. Each Respondent is a "responsible party" under Section 107(a) and a "potentially responsible party" within the meaning of Section 122(d)(3) of CERCLA, 42 U.S.C. §§ 9607(a), 9622 (d)(3).
 - c. The Site is a "facility" within the meaning of Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
 - d. The substances identified in Paragraph 10, above, at the Site are "hazardous substances" within the meaning of Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
 - e. The past, present or potential future migration into the environment of hazardous substances, pollutants or contaminants at or from the Site constitutes an actual "release" or a substantial threat of a "release" into the "environment" as those terms are defined in Sections 101(8) and 101(22) of CERCLA, 42 U.S.C. Sections 9601(8) and 9601(22).
 - f. The actions called for in this Order will be consistent with the NCP to the extent that the NCP is consistent

- with CERCLA, provided that the Respondents conduct such actions properly and promptly pursuant to this Order.
- g. It is necessary and appropriate to conduct the Activities which are the subject of this Order to plan and direct response actions in accordance with CERCLA and the NCP.
- h. The Activities will be conducted properly and promptly by the Respondents, in accordance with Sections 104(a)(1) and 122(a) of CERCLA provided that these actions are conducted as described in the Scope of Work (Appendix A) and any modifications thereto, and pursuant to all conditions of the Order.
- i. The Respondents are qualified to conduct the Activities, in accordance with Section 104(a)(1) of CERCLA, if the Respondents engage a qualified contractor pursuant to Paragraph 18 of this Order.
- j. EPA will arrange for the oversight and review of the Activities by both qualified EPA and State personnel and qualified contractors, in accordance with Section 104(a)(1) of CERCLA.

<u>ORDER</u>

BASED ON THE FOREGOING FACTS AND DETERMINATIONS, EPA, AND THE RESPONDENTS HEREBY AGREE, AND EPA HEREBY ORDERS THAT:

14. <u>Implementation</u>: Subject to EPA's right, pursuant to Paragraph 46 herein, to perform all or any portion of the

Activities which the Respondents fail to perform to EPA's satisfaction, the Respondents shall perform the Activities in accordance with the Scope of Work (SOW) set forth in Appendix A. Such performance shall include any modifications made or required by EPA to bring documents and/or deliverables prepared by the Respondents under this Order into conformance with the requirements of CERCLA, the SOW, or modifications to the SOW, and any work plans prepared under this Order or the SOW, which are incorporated by reference into this Order. Upon the effective date of this Order, Respondents shall commence implementation of this Order and of work required by the Scope of Work, and shall include implementation of such in accordance with the terms and schedules set forth in this Order, Appendix A, and any approved Work Plans. The activities conducted pursuant to this Order are subject to approval by EPA and shall, unless otherwise directed by EPA, be consistent with the NCP to the extent that the NCP is consistent with CERCLA. Such activities shall also be consistent with any guidances referenced in the Scope of Work. If any inconsistencies between any of the above laws, regulations or guidance exist, CERCLA shall govern. The Respondents shall implement any additional tasks which EPA determines are necessary as part of performing the Activities required under this Order. The additional tasks shall be completed in accordance with the standards, specifications, and schedule determined or approved by EPA.

- 15. Reimbursement of EPA Oversight Costs: The Respondents shall under this Order reimburse the Hazardous Substances Superfund for all costs, including interest, incurred not inconsistent with the NCP and approved by EPA after the effective date of this Order in overseeing this Order and under or in connection with a contract or arrangement between EPA and qualified person(s) to assist EPA in overseeing and reviewing the conduct of Activities required under this Order up to a total of thirty thousand dollars (\$30,000). Reimbursable oversight costs shall include all direct and indirect costs of EPA's oversight arrangements for the Activities, including, but not limited to, time and travel costs of EPA personnel and associated indirect costs, contractor costs, compliance monitoring, including the collection and analysis of split samples, site visits, interpretation of Order provisions, and review of reports and deliverables under this Order.
- 16. Within sixty (60) days after Respondents' completion of the Activities, EPA will provide Respondents with an accounting of all oversight costs incurred by the United States with respect to the Activities. Respondents shall, within thirty (30) days of receipt of the oversight cost accounting, remit a certified check for the amount of such costs, made payable to the Hazardous. Substances Superfund. If Respondents dispute an oversight cost, pursuant to the procedures of Paragraph 36, Respondents may initiate dispute resolution if Respondents notify EPA in writing within five (5) days of receipt of the oversight cost summary.

Initiation of dispute resolution does not delay payment of oversight costs. Checks for such payments shall identify the name of the Site and docket number for this Order, and be mailed to:

Region I
U.S. Environmental Protection Agency
3 Mellon Bank Center, 27th Floor
P.O. Box 360197 M
Pittsburgh, PA 15251

A copy of the transmittal letter and the check shall be provided simultaneously to the EPA Remedial Project Manager (RPM).

17. Observation of Respondents' Performance: The Respondents shall allow EPA's RPM, EPA's and/or the Massachusetts Department of Environmental Protection's employees, agents, consultants, contractors, and authorized representatives to observe the Respondents' work at the Site in implementing the Activities pursuant to this Order. While the Activities are being performed, the Respondents shall permit such persons to inspect and copy all records, documents, files or other writings and record all field activities relating to this Order by means of photographic or other recording equipment; to enter and to freely move about properties owned by the Respondents; to conduct such tests as EPA may deem necessary; and to verify the data submitted to EPA by the Respondents. Respondents do not waive their rights to assert any privileges which may be applicable to such records or documents. However, no sampling data, analytical data

reports, books and logs or any other documents, reports, records and information, which Respondents are required to generate pursuant to this Consent Order and the Scope of Work, may be withheld from EPA on the basis that they are subject to the attorney work-product privilege, the attorney-client privilege or any other privilege.

18. Engagement of a Contractor: Within five (5) days after the effective date of this Order, the Respondents shall engage a qualified Contractor to perform the technical activities required under this Order. The Contractor shall employ key personnel dedicated to the performance of the Activities that shall have a minimum of five (5) years of direct experience in performing investigations and studies at sites where releases of hazardous substances have occurred or may have occurred. All work performed by said Contractor pursuant to this Order shall be under the general direction and supervision of a qualified individual with expertise in hazardous substance site investigation and clean-up. Such professional staff sufficient to perform the Activities shall be employed by the Contractor prior to engagement by the Respondents. Written notice of the engagement of the Contractor shall be provided to EPA within five (5) days after such engagement, and shall include a statement of qualifications and identification of project personnel, and language dedicating the specific professional staff to the project, shall be provided to EPA at that time. The Respondents

shall notify EPA regarding the identity and qualifications of all subcontractors as soon as each subcontractor is engaged or at least one week prior to the subcontractor's commencement of site work, whichever occurs first. EPA shall have the right to disapprove, based on professional qualifications, conflicts of interest and/or deficiencies in previous similar work, or debarment/suspension status, any Contractor person engaged directly or indirectly by the Respondents to conduct work activities under this Order.

- 19. <u>Designation of Respondents' Project Coordinator</u>: The Respondents have designated Jeffrey Lawson, Environmental Protection Control, Inc., Two Grafton Common, Grafton, MA 01519, telephone number (508) 839-0033, Project Coordinator for this Order. The Project Coordinator shall be responsible for the administration of all actions called for by this Order. Any subsequent change in the Respondents' Project Coordinator shall be accomplished by notifying EPA in writing at least ten (10) calendar days prior to the change.
- 20. <u>Designation of EPA Coordinators</u>: EPA will designate a Remedial Project Manager (RPM) for administration of its responsibilities, for oversight of the day-to-day activities conducted under the Order, and for receipt of all written matter required by the Order. In addition, EPA will designate a Geographic Section Chief (GSC) who shall be responsible for the

findings of approval/disapproval and comments on major project deliverables under this Order. The following are designated as the EPA coordinators for purposes of this Order:

Remedial Project Manager

Barbara Newman HRS-CAN3 U.S. Environmental Protection Agency Waste Management Division JFK Federal Building Boston, Massachusetts 02203 (617) 573-5736

Geographic Section Chief

Richard Cavagnero
HRS-CAN3
U.S. Environmental Protection Agency
Waste Management Division
JFK Federal Building
Boston, Massachusetts 02203
(617) 573-5730

The RPM shall have the authority vested in the On-Scene Coordinator and the Remedial Project Manager by the National Contingency Plan, 40 C.F.R. Part 300 et seg. This includes the authority to halt, conduct, or direct any tasks required by this Order and/or any response action, or portions thereof when conditions present an immediate risk to public health or welfare or the environment. The absence of the EPA RPM from the Site shall not be cause for the Respondents to halt actions at the Site. Any subsequent change in the EPA RPM or GSC shall be accomplished by notifying the Respondents in writing.

The Respondents shall guarantee access to 21. Site Access: their respective properties at the Site for the purpose of implementing this Order. To the extent that any area where work is to be performed under this Order is owned or controlled by persons other than Respondents, the Respondents shall use their best efforts to obtain site access agreements from all site property owners and from owners of any other property on which work is necessary under this Order, within ten (10) days after the effective date of this Order. For purposes of this Paragraph "best effort," includes, but is not limited to, seeking judicial assistance to enforce any rights available to any one or more of the Respondents, cooperating fully with EPA in any efforts made by EPA to obtain access and providing reasonable consideration for access. Such agreements shall, at a minimum, allow the Respondents and their contractors, EPA, its designated coordinators, agents, employees, authorized representatives and contractors, and the Commonwealth of Massachusetts state officials, employees, or authorized representatives to enter freely, and move about for the purpose of implementing this Order or overseeing the Respondents' implementation of this Order. the event that Respondents conclude that they are unable to obtain a necessary access agreement within the referenced time, the Respondents shall immediately notify EPA in writing and shall include in such notification a description of the efforts made by the Respondents to obtain the necessary access and the reason for their lack of success. The Respondents agree to reimburse EPA

for any costs EPA may incur in exercising its statutory authority to gain access to the Site.

Creation of Danger: Upon the occurrence of any event during the performance of the Activities that causes or threatens any release of hazardous substances, pollutants or contaminants from the Site into the environment except as provided under the Scope of Work or that threatens the public health, welfare, or the environment, the Respondents shall notify the EPA RPM within twenty-four (24) hours of obtaining knowledge of any such event, or in the event of his or her unavailability, shall notify within the same twenty-four (24) hour period the Response and Prevention Section, Environmental Services Division, Region I, United States Environmental Protection Agency, (617) 223-7265, setting forth the events that have occurred, the measures taken and to be taken to mitigate any harm caused or threatened by the event, and the measures taken and to be taken to prevent the reoccurrence of such an event. Regardless of whether or not such a report is made to EPA, if EPA determines that activities in compliance or noncompliance with this Order have caused or may cause a release of a hazardous substance, pollutant or contaminant or a threat to the public health or welfare or to the environment, EPA may (a) order the Respondents to stop further implementation of this Order for such period of time as may be needed to abate such release or threat; and/or (b) undertake any action which EPA determines is necessary to abate such a release or threat.

- 23. Health and Safety Compliance and Quality Assurance/Quality

 Control: The Respondents shall use quality assurance, quality

 control, and chain of custody procedures described in Appendix A

 to this Order. The Respondents shall also comply with the Health

 and Safety Plan set forth in Appendix A to this Order.
- 24. Availability of Data Generated: Any data, summaries, reports, documents or memoranda generated pursuant to this Order shall be furnished to EPA and the Commonwealth of Massachusetts (State) upon request except as provided in Paragraph 17.
- 25. Split Sampling: At the request of EPA, the Respondents shall provide split or duplicate samples to EPA or their authorized representatives, of any samples collected by the Respondents pursuant to the implementation of this Order. Similarly, the Respondents shall allow such split or duplicate samples to be taken by EPA and/or its authorized representatives. Not less than three (3) weeks in advance of sample collection, the Respondents shall notify EPA of the sampling date, sampling media, the number of samples from each media, and the EPA method of analysis and the analytes of interest, unless EPA specifies a different time period.
- 26. Record Preservation: The Respondents shall preserve, during the pendency of this Order, and for a period of not less than six

(6) years after completion of work under this Order, all records and documents in their possession or in the possession of their employees, agents, officials, authorized representatives, accountants, contractors, attorneys, successors or assigns, and parent companies, which relate in any way to implementation of this Order, notwithstanding any document retention policy to the contrary. After that six (6) year period, the Respondents must receive written permission from the EPA Region I Office of Regional Counsel and the State prior to the destruction of any such documents. A request to destroy any such documents shall be accompanied by a copy of this Order and shall be sent to the following addresses:

Regional Counsel
Re: Wells G & H Superfund Site, Woburn, Massachusetts
U.S. Environmental Protection Agency
JFK Federal Building
Boston, MA 02203

Office of the Attorney General Re: Wells G & H Superfund Site, Woburn, Massachusetts Environmental Protection Division 1 Ashburton Place Boston, MA 02108

Upon request by EPA, Respondents shall make available to EPA any or all such records and documents or copies of any such records and documents.

27. <u>Place and Manner of Notice</u>: Communications between the Respondents and EPA, and all documents, including reports, approvals, disapprovals, written notice, and other correspondence concerning the activities performed pursuant to the terms and

conditions of this Order, shall be directed through the Respondents' Project Coordinator and the EPA RPM unless this Order specifies that another person shall receive such communications. For each deliverable document provided to EPA, three (3) copies and one camera ready original shall be submitted to EPA unless otherwise requested by EPA. All such documents submitted pursuant to this Order, shall be sent by certified mail, return receipt requested, or by courier, to EPA and the RPM at the following addresses or to such other addresses as EPA hereafter may designate in writing:

Barbara Newman HRS-CAN3 U.S. Environmental Protection Agency Waste Management Division JFK Federal Building Boston, MA 02203

- 28. <u>Necessity of Formal Approval</u>: No informal advice, guidance, suggestions or comments by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondents shall be construed as relieving the Respondents of their obligations to obtain such formal reviews as may be required by this Order.
- 29. <u>Procedure for Submission of Plans, Deliverables and Reports</u>
 to EPA and the State: All plans, deliverables and reports
 identified in the Scope of Work or the EPA approved Work Plan for
 submittal to EPA and the State shall be so delivered to EPA in

accordance with the schedule set forth in Appendix A or otherwise established under this Order. Prior to receipt of EPA approval, any report submitted to EPA for approval shall be marked "Draft" on each page and shall include, in a prominent location in the document, the following disclaimer: "Disclaimer: This document is a DRAFT document which has not received final acceptance from the U.S. Environmental Protection Agency, prepared by the Respondents for a government Administrative Order. The opinions, findings, and conclusion expressed are those of the authors and not those of the U.S. Environmental Protection Agency."

- 30. <u>Procedure for Review, Revision, and Approval of</u>

 <u>Deliverables</u>: EPA will review the deliverables required by this

 Order to determine whether they are consistent with the

 requirements of Appendix A and the Order and will respond to

 Respondents with one of four findings:
 - A. Approval -- which means that Respondents shall proceed with the next scheduled activity consistent with the deliverable.
 - B. Approval with Conditions--which means that Respondents shall proceed with the next scheduled activity, subject to certain required modifications or conditions set forth in EPA comments.
 - C. Disapproval with Modification Required--which means that the Respondents shall not proceed until they modify the deliverable to correct the noted

deficiencies and resubmit the deliverable consistent with EPA's comments for further review. Modifications may be required in any original submitted deliverable, any portions of a deliverable, or any deliverable or portion of deliverable resubmitted to EPA. EPA will specify a schedule for resubmitting deliverables requiring modifications.

D. Disapproval with EPA modification—which means that EPA has determined that it will modify the submission to cure any deficiencies and/or undertake all or any portion of the Activities. In either case EPA will recover costs of such modification or work from the Respondents.

A finding of Approval or Approval with Conditions shall not be construed to mean that EPA concurs with all conclusions, methods or statements in the deliverables. Upon receipt of a plan or other document approved, approved with conditions or modified by EPA, the Respondent shall proceed to perform the activities contained in the plan or document in accordance with the approval or modification.

31. <u>Incorporation of Deliverables into Consent Order</u>: Any reports, plans, specifications, schedules, and attachments or other deliverables required by this Order are incorporated into this Order. Except as provided in Paragraph 32, any delay or non-compliance with such reports, plans, specifications,

schedules, and attachments or other deliverables shall be considered delay or non-compliance with requirements of this Order and shall subject the Respondents to penalties pursuant to Paragraphs 37 and 38.

Excuses for Delays in Performance: With respect to the Respondents' compliance with any interim or final time deadline set forth in this Order, no stipulated penalties or other sanctions will be imposed for delay directly caused by the following which could not have been overcome by the Respondents! due diligence: (i) an act of God; (ii) delay resulting from failure to secure necessary access agreements, to the extent that such delay is not within the control of the Respondents, but only for Activities for which such access is essential; or (iii) any other cause beyond the control of the Respondents; provided, however, that increases in the cost of performance of the Activities shall not excuse such performance, excuse compliance with the deadlines and schedules in this Order nor affect the applicability of the penalty provisions or other sanctions which are provided for under this Order. Such penalties and sanctions shall be avoided only if, and only to the extent that, delays directly caused by conditions specified in (i), (ii) and (iii) above materially interfered with or prevented the Respondents' execution of their responsibilities during the period of such delay. The Respondents shall notify EPA within forty-eight (48) hours of becoming aware that circumstances may or have occurred

which the Respondents assert should trigger the excuse provisions of this Paragraph, and shall identify with specificity the cause of such delay and the estimated duration of such delay. Within five (5) working days after Respondents first became aware of such circumstances, Respondents shall supply to EPA in writing an explanation of the cause(s) of any actual or expected delay or noncompliance, the anticipated duration of any delay, the measures taken and to be taken by Respondents to prevent or minimize the delay or correct the noncompliance, and the timetable for implementation of such measures. Failure to notify EPA shall result in a waiver of the Respondents' right to assert that the delay should be excused under the terms of this Paragraph. The Respondents further agree to use their best efforts to minimize any delay which may result. The Respondents acknowledge that they will have the burden of justifying excuses for delay in performance under this Paragraph.

- 33. <u>Progress Meetings:</u> At the request of EPA, meetings between the RPM and the Contractor shall be held at the EPA office in Boston, unless EPA selects another location.
- 34. <u>Public Review of Data</u>: When EPA determines that the final report required under this Order is acceptable, pursuant to Paragraph 30, such report shall be made available to the public. Prior to such time, the report shall not be distributed by the Respondents to the public.

- 35. Modification of Order: This Order, with the exception of Appendix A or deliverables thereunder, may only be modified upon the written agreement of EPA, by signature of the Regional Administrator, and the Respondents' Project Coordinator.

 Appendix A or any accepted deliverables may be modified upon signature of the GSC of EPA.
- 36. Dispute Resolution: If the Respondents object to any EPA notice of disapproval or decision made pursuant to this Order, the Respondents shall notify EPA in writing of their objections within five (5) working days after receipt of the notice. EPA and the Respondents shall have ten (10) working days from the receipt by EPA of the notification of objection to reach agreement. If agreement cannot be reached on any issue within this ten (10) day period, EPA shall provide a written statement of its decision and the basis for the decision to the Respondents and the Respondents shall implement the activities required by the EPA decision beginning no later than two (2) days after receipt of the EPA statement. EPA's decision shall not be arbitrary and capricious or otherwise not in accordance with law. In the event that the Respondents do not implement the activities required by the EPA decision, the EPA Regional Administrator may take such civil enforcement actions against the Respondents as may be provided by statutory or equitable authorities, including but not limited to, the assessment of such civil penalties or

damages as are authorized by Sections 122 and 109 of CERCLA. In such an event, EPA retains the right to perform additional studies, and to perform additional response activities at the Site pursuant to its authority under CERCLA and to recover the costs thereof from the Respondents. Engagement of dispute resolution among the parties shall not be cause for the delay of any work. However, EPA retains the discretion to waive stipulated penalties should agreement on dispute resolution be reached.

37. Stipulated Penalties for Delay in Performance of Major

Deliverables: For each day that the Respondents fail to complete
a major deliverable identified in the SOW or to comply with any
time deadline for any major deliverable established pursuant to
this Order, the Respondents shall pay the sums set forth below as
stipulated penalties:

<u>Peric</u>	<u>od_0</u> 1	Failure to Comply	<u>Pen</u>	alty Per Day
1st	1886	5th day	\$	1,000.00
6th	«ф	15th day		2,000.00
each	day	thereafter		5,000.00

Major deliverables are the Work Plan and the Final Report as described in the Scope of Work. Penalties begin to accrue the day following the date on which performance is due and extend through until the violation is corrected.

- 38. Stipulated Penalties for Other Delays in Performance:
 For each day that the Respondents fail to comply with any
 deadline established pursuant to this Order other than a deadline
 governed by Paragraph 37 hereto, stipulated penalties in the
 amount of five hundred (500) dollars per day shall accrue on the
 day following the date that performance is due and extend through
 until the violation is corrected. Because of the short-term
 nature of this Order, penalties that accrue pursuant to this
 Paragraph shall not be owed if the scheduled dates for completion
 of the Work Plan and the Final Report are met.
- 39. Any penalty accruing under Paragraphs 37 and 38 shall be due and payable within ten (10) days after the receipt of a written demand by EPA. Payment of such penalty shall be made by certified check payable to the Hazardous Substances Superfund, and mailed to the following address with a notation of the docket number of this Order:

Region I
U.S. Environmental Protection Agency
3 Mellon Bank Center, 27th Floor
P.O. Box 360197 M
Pittsburgh, PA 15251

A copy of the certified check shall be sent to the Remedial Project Manager within five (5) days of payment. The stipulated penalties set forth in this Paragraph do not preclude EPA from electing to pursue any other remedies or sanctions which may be

available to EPA by reason of the Respondents' violation of this Order or the Respondents' failure or refusal to comply with any of the requirements of this Order. Such remedies and sanctions include injunctive relief, the assessment of such civil penalties or damages as are authorized by Sections 122 and 109 of CERCLA, or the performance of a federally funded response action, and a corresponding suit for reimbursement of costs incurred by the United States.

- 40. Civil Penalties for Non-Compliance: Pursuant to Section 122 and 109 of CERCLA, the Respondents are advised that if they violate, or fail or refuse to comply with this Order, or any portion thereof, the Respondents may be subject to civil penalties or damages of not more than \$25,000 for each day in which such violation occurs. In the event that such violation or failure or refusal to comply occurs a second time, the amount of such penalty shall not be more than \$75,000 for each day during which the violation (or failure or refusal) continues.
- 41. <u>Waiver of Settlement Conference</u>: In consideration of the communications between the Respondents and EPA prior to the issuance of this Order concerning its terms, Respondents hereby agree that there is no need for a settlement conference prior to the effective date of this Order.

- 42. Confidentiality Claims: The Respondents may assert a confidentiality claim, if appropriate, covering all or part of the information requested by this Order pursuant to 40 C.F.R. § 2.203(b). Such an assertion shall be adequately substantiated when it is made. Neither analytical data nor any information specified in Section 104(e)(7)(F) of CERCLA, shall be claimed as confidential by the Respondents. Information determined to be confidential by EPA shall be afforded the protection specified by 40 C.F.R. Part 2, Subpart B, and Section 104(e)(7) of CERCLA. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Respondents.
- 43. Indemnification: The Respondents agree to indemnify and save and hold harmless the United States Government, the Commonwealth of Massachusetts, their agencies, departments, agents, offices, employees and representatives from any and all claims or causes of action arising from or on account of acts or omissions of the Respondents, their officers, employees, agents, servants, receivers, successors, trustees, assignees or contractors in carrying out the Activities pursuant to this Order.
- 44. <u>Certification of the Respondents' Performance of the Work</u>

 <u>Activities</u>: Upon EPA's final approval of the report of the

 Activities in accordance with this Order, EPA shall determine if

the Respondents have met all of their responsibilities under Appendix A (Scope of Work), and under the provisions of the Order, including payment of oversight costs and any stipulated penalties or other penalties or damages that the Respondents may have incurred during the course of their activities under the Order. If EPA determines that such responsibilities have been satisfied, EPA will, within one hundred and twenty (120) days, certify to the Respondents that their responsibilities under the Scope of Work, the Work Plan and this Order have been completely and successfully discharged.

- 45. Covenant Not to Sue: Upon certification by EPA that the Respondents have completed the Activities in accordance with this Order, EPA covenants not to sue the Respondents for completion of the Activities or for the amount of oversight costs actually paid pursuant to Paragraph 15. This covenant not to sue shall not take effect and shall be rendered null and void in the event that the Respondents fail to make all of the payments required of them by this Order. Respondents are not released from liability, if any, for any actions taken beyond the terms of this Order including, but not limited to, removals, other operable units, remedial design/remedial action of this operable unit, or activities arising pursuant to Section 121(c) of CERCLA.
- 46. <u>EPA's Reservation of Rights</u>: EPA reserves the right to bring an action or actions against the Respondents under Section

107 of CERCLA for recovery of all past response costs incurred by the United States at the Site not reimbursed by the Respondents, any costs incurred in the event that EPA performs all or any portion of the Activities, as well as any past or future costs incurred by the United States in connection with response activities conducted under CERCLA at this site. EPA expressly reserves any and all rights that it may have to enforce this Order against the Respondents, including EPA's right both to disapprove of work performed by the Respondents and to require that the Respondents perform tasks in addition to those detailed in this Order. In addition, EPA reserves the right to undertake actions under Section 104 of CERCLA, including removal and/or remedial actions at any time and to perform any and all portions of the Activities which the Respondents fail to perform to EPA's satisfaction. Issuance of this Order shall not affect or limit in any way any rights which EPA may have in relation to any liabilities or obligations which the Respondents or other persons may be subject to under CERCLA or other laws by virtue of any connections that the Respondents or those other persons have or may have had with the Site. EPA reserves any and all rights to take any enforcement action pursuant to CERCLA, and/or any other available legal authority, including the right to seek injunctive relief, response costs, monetary penalties and punitive damages for any violation of law or this Order. This Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

47. Other Claims: Other than as provided in Paragraph 45, nothing in this Order shall constitute or be construed as a release or covenant not to sue regarding any claim, cause of action, or demand in law or equity against any person, firm, trust, trustee, joint venture, partnership, corporation, or other entity, for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Site. EPA shall not be liable for any injuries or damages to persons or property resulting from acts or omissions of the Respondents in carrying out the activities pursuant to this Order, nor shall EPA be held out as a party to, or in any other way be held liable under, any contract entered into by the Respondents or by the Contractor in carrying out the activities pursuant to this Order. Except as otherwise expressly provided for in this Order, this Order shall not estop or limit any legal or equitable claims of the United States or the State against the Respondents, their agents, contractors, or assigns, including but not limited to, claims related to releases of hazardous substances or other pollutants or contaminants. consideration of the entry of this Order, the Respondents agree not to assert any causes of action, claims or demands against the United States or the State, including the Hazardous Substances

Superfund with respect to matters arising out of or relating to the conduct of the Activities.

- 48. Other Laws: All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable or relevant and appropriate State and federal requirements as defined by EPA policy and identified pursuant to Appendix A. Other agencies, including the Occupational Safety and Health Administration (OSHA) and the Fish and Wildlife Service (F&WS), may be called upon to review the conduct of work under this Order. In the event that there is a conflict in the application of federal laws or regulations, the more stringent of the conflicting provisions shall apply.
- 49. Use of Resource Conservation and Recovery Act Facilities:
 All facilities used by the Respondents for the off-site transfer,
 treatment, storage or disposal of hazardous substances removed
 from the Site must be in compliance with the applicable requirement of the Resource Conservation and Recovery Act (RCRA), as
 amended, and state law. The Respondents are also responsible for
 complying with requirements applicable to generators of hazardous
 waste, found at 40 C.F.R. Part 262. Further, the Respondents
 must designate, in a report to EPA, any facilities that the
 Respondents propose to use for such off-site transfer, storage,

treatment or disposal, and EPA must approve the use of such proposed facilities.

- 50. Notice to the State: Pursuant to the requirements of Sections 121(f) and 104(b)(2) of CERCLA, EPA has notified the Commonwealth of Massachusetts of the scope of the response action, the negotiations with the potentially responsible parties, and of the issuance of this Order.
- 51. Notice to the Federal Natural Resource Trustee: Pursuant to Section 122(j) of CERCLA, EPA has notified the Federal Natural Resource Trustees of the scope of the response action, the negotiations with the potentially responsible parties, and of the issuance of this Order.
- 52. <u>Effective Date</u>: This Order shall be effective upon the date that the Respondents receive notice that the Regional Administrator has signed the Order.

IT IS SO AGREED AND ORDERED BY:

Julae Belaga

Regional Administrator

Dete

SIGNATURE PAGE TO Wells G & H SITE ADMINISTRATIVE ORDER

It is so agreed, By <u>VNIFIRST</u> CORP;

WITNESS the execution hereof by the undersigned Party by it or its authorized representative as of the date below.

(Name of Company or Entity)

(Name of Signer)

VICE CHAIRMEN (Title of Signer)

(SEAL)

Attest: CARTOR ENGURAGE

(Name) (Title)

Date:

SIGNATURE PAGE TO Wells G & H SITE ADMINISTRATIVE ORDER

It is so agreed, By sould be the him						
WITNESS the execution hereof by the undersigned Party by it						
or its authorized representative as of the date below.						
W.R. GRACE & COCONN.						
(Name of Company or Entity)						
DONALD H. KOHNKEN						
(Name of Signer)						
EXECUTIVE VICE-PRESIDENT						
and DESCRIPTION CHACE SPECIALTY SHEWISAIS SO						
PRESIDENT, GRACE SPECIALTY CHEMICALS CO (Title of Signer)						
(SEAL)						

_____ (Name) (Title)

Attest:

Date:

APPENDIX A SCOPE OF WORK

A. PURPOSE OF STUDIES

The purpose of the following studies is to provide information necessary to design groundwater collection and treatment systems for the W.R. Grace & Co. - Conn. (Grace) and Unifirst Corporation properties (Unifirst) at the Wells G & H Superfund Site in Woburn, Massachusetts.

The groundwater collection and treatment systems shall ultimately attain the remedial objectives for groundwater listed below and in the U.S. EPA Record of Decision (ROD) signed by the Regional Administrator Region I, on September 14 1989, as it pertains to properties owned by Grace and Unifirst.

B. Remedial Objectives

The remedial objectives for contaminated groundwater at the source areas are:

- to prevent further migration of contaminated groundwater from the source areas to the central area
- to restore the groundwater in the vicinity of the source areas to cleanup levels; and
- to prevent public contact with contaminated groundwater above the cleanup levels.

The cleanup levels for selected hazardous substances in groundwater established in the ROD include the following:

chloroform	100	ug/l
1,1-dichloroethane	5	ug/1
1,2-dichloroethane	5	ug/1
1,1-dichloroethene	7	ug/1
Tetrachloroethene	5	ug/1
Trichloroethene	5	ug/1
vinyl-chloride	2	ug/1
trans, 1, 2-dichloroe		70 ug/1
1,1,1-trichloroetha	ne	200 ug/1

C. Remedy for Contaminated Ground water

The remedy described in the ROD for groundwater contaminated with hazardous substances at concentrations above clean up levels with respect to the above named properties, is to pump contaminated groundwater from the overburden and/or bedrock aguifer and to treat the water by pre-treatment to

remove suspended solids and metals, followed by air stripping to remove VOC contaminants and carbon adsorption to treat emissions from the air stripper. The ROD also stipulates that technologies other than air stripping may be considered for implementation of the groundwater remedy if they can be demonstrated to be equally or more effective.

D. Submittals

Within thirty (30) days after the effective date of this Order, Respondents shall submit the following information to EPA for review and approval.

- 1. A work plan which shall contain information included in the ENSR submittal dated October 6, 1989, attachment 2, but expanded upon to include the following information for both the Grace and Unifirst properties:
 - a. A list of objectives for all tests and studies, including pump tests, sampling and analyses and treatability studies. These objectives shall address the primary objective of this Consent Order which is to obtain information needed to design a groundwater recovery and treatment system that shall meet the Response Objectives found in Part B of this SOW.

For the Unifirst property specifically, the objectives shall include:

- To determine the yield potential of the extraction system;
- To determine the drawdown, zone of influence, and zone of capture of the extraction system; and
- 3. To determine the feasibility of using a GAC system with pretreatment to remediate groundwater as proposed in the ENSR submittal.

For the Grace property specifically, the objectives shall include:

- To confirm present assumptions, found in the ENSR submittal, or determine the yield potential of the extraction system;
- 2. To determine the drawdown, zones of influence, and zones of capture of the

- extraction system for both the bedrock and overburden aquifers.
- 3. To determine the feasibility of using the UV Ozonation system to remediate groundwater as proposed in the ENSR submittal.
- b. A proposal for meeting the above objectives. proposal shall include, at a minimum, the following: 1) design plans and specifications for pre-treatment and treatment technologies that shall be used for this pilot study; 2) maps of all well locations to be sampled and monitored; 3) table of wells to be monitored as part of the pump tests that includes depth of well, type of well, location of well, frequency of analytical monitoring, a timetable for taking water elevations before, during and after the pump tests, and the equipment that shall be used for monitoring; 4) methods for disposing of spent carbon canisters; 5) methods for determining the effectiveness of the gravel trench recovery system suggested as an alternative in the ENSR submittal; 6) methods to evaluate effectiveness of extraction system to capture contaminated groundwater (both laterally and vertically) for treatment; 7) methods for determining when the above objectives for the pump test have been satisfied and the pump tests can be judged completed; 8) the location for discharging groundwater from pump tests and treatment facilities; and 9) implementation plans that include site preparation, such as set-up of support zone, (trailor, on-site laboratory, temporary water storage area), and installation of treatment facilities.
- c. A description of a complete water elevation survey that shall be taken before the pump tests begin, once when UC22 starts pumping, once when Grace starts pumping, once when Grace stops pumping, and once when all wells within the study area stop pumping. The monitoring wells to be incorporated in this survey shall, at a minimum, include all the wells listed in Table 3 of the ENSR Predesign Work Plan. Piezometric surface maps and cross-sections shall be produced for each water elevation survey.
- d. A list of wells to be used in the pump test. It will include the monitoring wells listed in Table 3 of the ENSR submittal, and also the following

wells shall be installed: one well cluster of overburden and shallow bedrock wells located near RW-2 (figure 2); and two well clusters composed of overburden, shallow bedrock and deep bedrock wells located near RW-4 and RW-7 (figure 2).

- e. A list of wells to be monitored at least two weeks before any pumping begins and continuing until two weeks after all pumping ends. These wells shall be used to evaluate and identify any background trends that would impact the evaluation of water elevation data. This program, at a minimum, shall include three bedrock and three overburden wells to be monitored at a one hour frequency.
- f. A plan for refitting all appropriate wells with new locks. These locks shall be opened by one common key and a copy of this key shall be distributed to EPA for its use.
- g. A contingency plan that explains the steps
 Respondents shall take if the treatment systems do
 not achieve standards provided under Section E
 below. This plan shall include a holding tank for
 contaminated water which shall allow the pump
 tests to continue when treatment system is being
 modified.
 - h. All documentation, studies, reports, etc., that support the design of the systems described in the workplan, (e.g., description of and results of the 72-hour pump test at Unifirst and slug tests at Grace).
- 2. A Site health and safety plan as outlined in Attachment 1, Section A of this SOW;
- 3. A quality assurance/quality control plan as outlined in Attachment 1, Section B to this SOW;
- A detailed sampling and analysis plan, as outlined in Attachment 1, Section C to this SOW;
- 5. Provisions for notification, consultation and reporting to EPA regarding planning, and implementation of all field activities as outlined in the Work Plan;
- 6. A system, schedule, and format for providing to EPA progress reports, Site study reports, quality control reports, analytical results and related field logbooks; and

- 7. A Site Security Plan which provides for Site security in accordance with 40 CFR Section 264.117(b) and 40 CFR Section 264.14. The Site Security Plan shall include, but not be limited to, a description of the measures to be taken to assure the safety of the personnel and equipment on-Site, safety of residents on and off-Site, and to provide an effective barrier against unauthorized public access. The security plan shall be designed to reflect and complement the level of work activity on-Site, and shall incorporate 24-hour security, if found to be necessary by EPA. This plan may be combined with the Health and Safety Plan requested above.
- 8. A list of all applicable or relevant and appropriate requirements for the Activities conducted pursuant to this Consent Order and Scope of Work.

E. Performance Standards

In accordance with Section 121(e)(1) of CERCLA, no federal, state or local permits shall be required for the portion of the remedial action conducted entirely on-site. The Respondents shall, however, meet the substantive technical requirements and standards necessary to obtain federal and state permits for all aspects of the remedial action.

The Respondents shall conduct all pilot studies and tests in accordance with all applicable or relevant and appropriate regulations including, but not limited to, the following standards and requirements:

1. General Standards

- a. Safe Drinking Water Act, 42 U.S.C. § 300 <u>et seg</u>. and regulations promulgated thereunder;
- b. The federal Clean Water Act (CWA), 33 U.S.C. 1251 et seq. and regulations promulgated thereunder;
- c. The federal Clean Air Act, 42 USC § 7401 et seq. (CAA(), and regulations promulgated thereunder;
- d. Federal Executive Orders 11988 (Floodplain) and 11990 (Wetlands);
- e. The Massachusetts Oil and Hazardous Materials Release Prevention and Response Act of 1983, as amended, M.G.L. c. 21E, §§ 1 et seq., and regulations promulgated thereunder.

- f. Occupational Safety and Health Act, 29 CFR 1910 and 1926.
- g. All statutes and regulations identified by EPA and the Commonwealth in Tables 8-11 in the ROD to the extent appropriate.

F. Time Table

- 1. EPA shall review the Work Plan and submit comments pursuant to paragraph 30 of this Order.
- 2. Within 10 days of the approval of the Work Plan by EPA, Respondents shall commence work.
- 3. Within 60 days of the completion of the studies, Respondents shall submit to EPA for approval, pursuant to paragraph 30 of this Order, a report which summarizes the results of the pump tests, water quality monitoring and treatability studies, and provides These conclusions shall specify the conclusions. appropriate extraction rates and location of extraction wells for capturing contamination, appropriate location of monitoring wells to confirm contaminant capture both laterally and vertically, the preferred pretreatment technology and the effectiveness of the pre-treatment and treatment technologies used in meeting the abovestated objectives, and final design plans and specifications with modifications based on the above studies.
- 4. EPA shall review the report and provide comments pursuant to paragraph 30 of this Consent Order.

ATTACHMENT 1. WORK PLAN

The Work Plan shall be designed to ensure that all remedial activities under this Consent Order shall be conducted in accordance with the applicable requirements of the National Contingency Plan (NCP), 40 CFR Part 300, and the guidelines of the EPA Remedial Investigation (RI) and Feasibility Study (FS) guidance documents and Data Quality Objectives (OSWER Directive 9355.0-7A, Oct. 17, 1986). Should there be any inconsistencies between the NCP and the EPA guidance documents, the NCP shall control.

A. SITE SPECIFIC HEALTH AND SAFETY PLAN

A site specific Health and Safety Plan (HSP) shall be prepared to address potential hazards to the field remedial team and the surrounding community potentially impacted by Site activities. This plan shall be consistent with the applicable guidelines of EPA's Health and Safety Planning for Remedial Investigations, Guidance on Remedial Investigations under CERCLA, (EPA/540/G-85/002, June 1985,) and the requirements of the Occupational Safety and Health Administration (OSHA) Guidelines for Hazardous Waste Operations and Emergency Response Activities (interim final rule, 29 CFR Part 1910 as amended, Federal Register Vol. 51, No. 244, Dec. 19, 1986).

The HSP shall be adequate to assure the safety of the field team and the community during all activities conducted pursuant to the Consent Order. Contingency plans shall be developed to address situations which may likely impact the off-Site community. The HSP shall also include action levels for ambient air quality monitoring during groundwater treatment.

The Health and Safety Plan shall address at a minimum the following items:

- 1. personal protective equipment requirements;
- on-site monitoring equipment requirements;
- 3. safe working procedures specification;
- 4. equipment decontamination procedures;
- 5. personal decontamination procedures; and
- 6. special and emergency procedures, including contingency plans.

B. PROJECT ACTIVITIES QUALITY ASSURANCE/QUALITY CONTROL PLAN

A Quality Assurance/Quality Control (QA/QC) Plan shall be prepared to specify the procedures to be used in all sampling and analyses, and reporting performed pursuant to this Consent Order. The QA/QC plan shall be prepared in accordance with the EPA guidance document QAMS-005/80 and Data Quality Objectives guidance documents EPA/540/G-87/003 and 004 (March 1987). At a minimum the following topics shall be addressed in the QA/QC Plan:

- 1. project organization and responsibility;
- quality assurance objectives for measurement data, stated in terms of precision, accuracy, completeness, representativeness, correctness, and comparability;
- 3. sample chain-of-custody procedures;
- field and analytical equipment, calibration procedures (ie. calibration of electric tapes), reference, and frequency;
- data reduction, validation and reporting;
- 6. internal quality control checks and frequency;
- quality assurance performance audits, system audits, and frequency of implementation and non-conformance reports;
- 8. preventive maintenance procedures and schedules;
- specific routine procedures to be used to assess the precision, accuracy, and completeness of data and to assess specific measurement parameters involved;
- 10. corrective action; and
- 11. quality assurance reports.

C. SAMPLING AND ANALYTICAL PLAN

The sampling and analytical plan shall specify the procedures to be followed for all samples to be taken pursuant to this Consent Order and at a minimum shall address the following:

Objectives of the sampling effort;

- 2. type, location, rationale and construction specifications for placement of any proposed or newly developed monitoring wells, well screens and borings.
- 3. type, quantity, rationale, frequency, and location of samples to be collected including, but not limited to, well location, type of well (bedrock/overburden) and depth of sample (if appropriate);
- 4. sampling methods to be used, including a field GC for on-site sampling of effluent, other well sampling and evaluation procedures, effluent sampling and air quality sampling techniques, provisions for split sampling, preservation techniques, equipment needs, and equipment cleaning and decontamination procedures, and field support requirements;
- 5. sampling shipping and chain-of-custody procedures;
- 6. analytical methods to be used on each sample including reference to appropriate EPA approved/specified analytical methods; description of the specified method and rationale for the choice of analysis.
- 7. A list of chemical constituents of interest and historical ranges of concentrations based on available data. These chemical constituents are to include, but not be limited to, the following: trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, 1,2-trandichloroethane, 1,1-dichloroethane, 1,1-dichloroethane, 1,1-dichloroethane, 1,1-maichloroethene, carbon tetrachloride, vinyl chloride, toluene, benzene, napthalene, pthalates, iron, manganese, arsenic, chromium, lead and radionuclides. Next to each analyte, list the analytical method that shall be used to detect that analyte, and the detection limit for that analyte.
- 8. Lab that shall be used for analysis.